

Please amend the first full paragraph on page 2, from lines 4-26, as follows:

There are a few much less common adaptive filter algorithms and ~~the use of~~ these algorithms have ~~has~~ been found desirable. The fast a-posteriori error sequential technique (FAEST)<sup>5,6</sup> algorithm and its stabilised version the SFAEST<sup>7</sup>, which are also described in Appendix I, have a convergence rate close to the RLS algorithm but complexity close to the LMS algorithm. They do however impose an additional constraint: the input signal must have a shift invariant property. The shift invariant property simply means that the input signal must be the same as the input signal on the previous iteration shifted on by one sample, with only one new sample. This property is not satisfied by the conventional architecture for a minimum mean square error (MMSE) receiver for a DS-CDMA system<sup>8</sup>. The numerical stability of the FAEST algorithms is not as well understood for LMS and RLS, but in practice the SFAEST algorithm seems to remain stable for a sufficiently long period of time for the purpose proposed here. The Fast Newton algorithm (see Appendix I) is an algorithm which can simplify the calculation of any of the above adaptive filter algorithms if the input signal can be modelled as an autoregressive filter with order less than is assumed by the above filters.

Please amend the first full paragraph on page 3, from lines 11-15, as follows:

It is one aim of the present invention to provide a DS-CDMA receiver using an adaptive filter in which the convergence is rapid. It is another aim of the invention to allow the use of the less common adaptive algorithms which have ~~has~~ not hitherto been possible.